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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,332	10/10/2001	Naoyuki Goto	645-150	2695

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EXAMINER
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BLACKWELL RUDASIL, GWENDOLYN A

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 01/27/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/975,332

Applicant(s)

GOTO, NAOYUKI

Examiner

Gwendolyn A. Blackwell-Rudasill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 38-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/550,879.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

*The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

2. Claims 38-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 38, 43, and 48 recite "one or more ingredients selected from the group consisting of MgO, CaO, SrO, BaO, and ZnO in the total amount of 3-15%". Each of the claims also includes the limitation of being substantially free of at least CaO. These limitations are contradictory and render the claims indefinite. Please clarify. To further prosecution of the application, the claims have been interpreted as to include CaO.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

4. Claims 54-57, 59-62, and 64-68 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent no. 4,390,638, Mennemann et al.

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Regarding claims 54-57, 59-62, and 64-68, Mennemann et al discloses an optical glass having a composition commensurate with that of the instant claims, specifically (weight percent):

18-36%	SiO <sub>2</sub>
3-18%	B <sub>2</sub> O <sub>3</sub>
0-14%	Na <sub>2</sub> O
7-25%	CaO
3-14%	TiO <sub>2</sub>

The glass has a coefficient of thermal expansion of  $90-98 \times 10^{-7}/^{\circ}\text{C}$  over the temperature range of 20-300°C. The lower range of ingredients from the group consisting of MgO, CaO, SrO, BaO, and ZnO is 15%, (columns 1-2, lines 45-68). The limitation "for a light filter" is considered intended use and does not define over the prior art of record.

Regarding claims 55-57, 60-62, and 65-67, a chemical composition and its properties are inseparable. *MPEP 2112.02*. As Mennemann discloses a glass composition commensurate with the present claims, it is fully expected that the glass would also possess similar characteristics. Absent an evidentiary showing to the contrary, the addition of physical properties to the claim language fails to distinguish the present claims over the prior art of record.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

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6. Claims 58, 63, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 5,719,989, Cushing in view of United States Patent no. 4,390,638, Mennemann et al.

Cushing discloses a light filter wherein the substrate is made from a "wide variety of materials including by not limited to glass", (columns 5-6, lines 65-2). The light filter is comprised of dielectric layers made of materials such as silicon dioxide, tantalum pentoxide, niobium oxide and aluminum oxide, which are stacked in the glass substrate. Cushing does not disclose the specific composition of the glass substrate.

Mennemann et al disclose an optical glass having a composition commensurate with that of the instant claims. Specifically, in weight percent:

18-36%	SiO <sub>2</sub>
3-18%	B <sub>2</sub> O <sub>3</sub>
0-14%	Na <sub>2</sub> O
7-25%	CaO
3-14%	TiO <sub>2</sub>

as well as having a coefficient of thermal expansion of  $90-98 \times 10^{-7}/^{\circ}\text{C}$  over the temperature range of 20-300°C. The lower range of ingredients from the group consisting of MgO, CaO, SrO, BaO, and ZnO is 15%, (columns 1-2, lines 45-68). Mennemann et al clearly disclose the use of the glass composition in optical systems wherein the glass is lightweight, acid proof, and hydrolysis resistant, (column 1, lines 7-45), but does not specifically give an example of the glass used as a light filter.

Because Cushing discloses that a wide variety of materials, such as glass, can be used as the substrate and the glass composition of Mennemann et al can be used in optical systems, it would have been obvious to one skilled in the art at the time of invention to modify the light filter of Cushing with the glass substrate of Mennemann et al to create an optical system that is

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lightweight, acid proof and hydrolysis resistant, (Mennemann et al, column 1, lines 7-9), while at the same time providing light filtering functions.

***Allowable Subject Matter***


7. Claims 38-53 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is (571) 272-1533. The examiner can normally be reached on Monday - Thursday; 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Gwendolyn A. Blackwell-Rudasill  
Examiner  
Art Unit 1775

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